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10/668,742	10/06/2003	Lanny R. Lee		3885

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LANNY R. LEE  
1358 Hooper Ave ste 324  
Toms River, NJ 08753

EXAMINER

WILLIAMS, THOMAS J

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/668,742

**Applicant(s)**

LEE, LANNY R.

**Examiner**

Thomas J. Williams

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 13-24 and 26-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/23/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of Species A in the reply filed on November 4, 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "178" has been used to designate both the opening in figure 24 and the rounded corner in figure 24a. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the subject matter of claim 5 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing

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sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The applicant is advised to cancel claim 5. The claim does not specifically state what type of holding feature(s) the applicant intends to claim. Therefore any submission of a figure with regards to claim 5 would be considered new matter and rejected under the first paragraph of 35 U.S.C. 112.

#### ***Specification***

5. The disclosure is objected to because of the following informalities:

Page 3 lines 6-7, reference to figure 8b must be cancelled, the applicant cannot add figures to the application after being filed;

Page 5 line 29, reference character “168” should be changed to “158”;

Page 6 line 14, reference character “170” should be changed to “180”.

Appropriate correction is required.

***Claim Objections***

6. Claim 25 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 25 recites the same limitations of claim 12.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-12 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 1 recites the limitation "the aperture" in lines 4-5. There is insufficient antecedent basis for this limitation in the claim.

10. Claim 1 recites the limitation "the expansion area" in line 6. There is insufficient antecedent basis for this limitation in the claim.

11. Regarding claim 1, the word "means" is preceded by the word(s) "by" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967):

It is recommended that the applicant delete the phrase "means" or rewrite the claim.

Claims 2-12 are rejected due to their dependence upon claim 1.

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12. Claim 25 does not further limit claim 12 and should be cancelled.

*Claim Rejections - 35 USC § 102*

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-3, 6, 7, 8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,366,735 to Dubois, Sr.

Re-claim 1, Dubois, Sr. discloses an external expandable holding device, comprising: a first member 30 having an external surface; a resilient expansion sleeve 22 secured to the first member, the sleeve is adapted to receive an aperture of a second member, see abstract; a fillister 32 is provided along an expansion area for relieving stress, see column 2 lines 55-60; an expansion chamber 36 with an external leading channel is defined between the first member 30 and the sleeve 22; a fluid is pumped into the expansion chamber thereby deforming the sleeve to engage the second member, see column 2 lines 66-68 to column 3 line 1; upon release of the pressure the expansion sleeve will return to a relaxed state, thus releasing the second member.

Re-claim 2, the holder and expansion sleeve are cylindrical.

Re-claim 3, the fluid is a liquid.

Re-claim 6, the holder is a workholder, the second part is a part.

Re-claim 7, the holder is a molded piece.

Re-claim 8, the expansion chamber is an annular chamber.

Re-claim 10, the chamber extends around a portion of the circumference of the holder.

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15. Claims 1, 2, 4, 6-12 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,840,323 to Nakajima.

Re-claim 1, Nakajima discloses an external expandable holding device, comprising: a first member 11 having an external surface; a resilient expansion sleeve 17 secured to the first member, the sleeve is adapted to receive an aperture of a second member 28; a fillister (interpreted as a fillet which is in Merriam Webster's Collegiate Dictionary Tenth Edition as: a concave junction formed where two surfaces meet, this is consistent with the instant application) is provided along an expansion area for relieving stress, note the concave area at the connection between the flat surface and the curved surface of element 17; an expansion chamber with an external leading channel is defined between the first member 11 and the sleeve 17; a fluid is pumped into the expansion chamber thereby deforming the sleeve to engage the second member, see figure 8; upon release of the pressure the expansion sleeve will return to a relaxed state, thus releasing the second member.

Re-claim 2, the holder and expansion sleeve are cylindrical.

Re-claim 3, the fluid is a gas.

Re-claim 6, the holder is a workholder, the second part is a part.

Re-claim 7, the holder is a molded piece.

Re-claim 8, the expansion chamber is an annular chamber.

Re-claim 9, the holding device comprises a plurality of expansion chambers arrayed longitudinally.

Re-claim 10, the chamber extends around a portion of the circumference of the holder.

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Re-claim 11, the holding device comprises a plurality of expansion chambers that are axially arrayed (along the axis) and act in a radial direction.

Re-claims 12 and 25, the holding device comprises a plurality of expansion chambers that are arrayed longitudinally.

***Claim Rejections - 35 USC § 103***

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dubois, Sr. in view of US 4,391,451 to Secor et al.

Re-claim 4, Dubois, Sr. fails to teach the use of a gas to expand the sleeve for engagement with the second member. Secor et al. teaches an expansible holding device that utilizes a gas for expanding the holding elements into engagement with a second member. Furthermore, Secor et al. teaches that the use of pneumatics to expand flexible members is known in the art, see column 1 lines 10-11. It would have been obvious to one of ordinary skill in the art to have provided the holding device of Dubois, Sr. with a gas as the working fluid as taught by Secor et al., thus providing the artisan with a plurality of means to operate the holding device. Furthermore, the functional equivalence of the liquid and the gas as a working medium (or fluid) is considered known in the art.

Re-claim 5, Dubois, Sr. fails to teach the external surface of the expansion sleeve as having special holding features. Secor et al. teaches the use of special holding features on an



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external surface of a holding element (the chuck surface in this case). Secor et al. teaches in column 4 lines 20-24 that this feature increases the capacity of the chuck to frictionally engage the second member. It would have been obvious to one of ordinary skill in the art to have provided the external surface of the sleeve in Dubois, Sr. with special holding features as taught by Secor et al., thus providing the sleeve with an increased holding capacity when engaging the second member.

***Conclusion***

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bostroem and Hashikawa teach a holding device having expansion elements with fillet junctions.

19. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is (703) 305-1346. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Bucci, can be reached at (703) 308-3668. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

TJW

December 29, 2004

THOMAS WILLIAMS  
PATENT EXAMINER

Thomas Williams  
AU 3683  
12/29/04